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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
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| 10/024,113      | 12/18/2001  | Alfred Birkenbach    | AP9982              | 8184             |

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EXAMINER

KERSHTEYN, IGOR

| ART UNIT | PAPER NUMBER |
|----------|--------------|
|----------|--------------|

3745

DATE MAILED: 01/08/2004

4

Please find below and/or attached an Office communication concerning this application or proceeding.

007

**Office Action Summary****Application No.**

10/024,113

**Applicant(s)**

BIRKENBACH ET AL.

**Examiner**

Igor Kershteyn

**Art Unit**

3745

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --****Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 8-14 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 8-14 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. §§ 119 and 120**

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☒ All b) ☐ Some \* c) ☐ None of:  
1. ☒ Certified copies of the priority documents have been received.  
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.  
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).  
\* See the attached detailed Office action for a list of the certified copies not received.
- 13) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application) since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.  
a) ☐ The translation of the foreign language provisional application has been received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121 since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)                      4) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)                      5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 4 .                      6) ☐ Other: .

## DETAILED ACTION

### ***Claim Rejections - 35 USC § 112***

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 8-14 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

A broad range or limitation together with a narrow range or limitation that falls within the broad range or limitation (in the same claim) is considered indefinite, since the resulting claim does not clearly set forth the metes and bounds of the patent protection desired. Note the explanation given by the Board of Patent Appeals and Interferences in *Ex parte Wu*, 10 USPQ2d 2031, 2033 (Bd. Pat. App. & Inter. 1989), as to where broad language is followed by "in particular" and then narrow language. The Board stated that this can render a claim indefinite by raising a question or doubt as to whether the feature introduced by such language is (a) merely exemplary of the remainder of the claim, and therefore not required, or (b) a required feature of the claims. Note also, for example, the decisions of *Ex parte Steigewald*, 131 USPQ 74 (Bd. App. 1961); *Ex parte Hall*, 83 USPQ 38 (Bd. App. 1948); and *Ex parte Hasche*, 86 USPQ 481 (Bd. App. 1949). In the present instance, claims 8 and 10 recites the broad recitation "hydraulic piston", and the claim also recites "in particular brake piston" which is the narrower statement of the range/limitation.

Claims 9, and 11-14 are rejected by virtue of their dependency on the above claims.

***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 8 and 9, as far as they are definite, are rejected under 35 U.S.C. 102(b) as being anticipated by Fumishi et al. (4,131,492).

Fumishi et al. teach a steel article, with a thermochemically treated surface, characterized by several superposed layers at the piston surface, comprising: a layer of oxide that is arranged directly at the piston surface and has a thickness of at least 1 micron, a connecting layer which is arranged beneath the layer of oxide and is mainly composed of nitrides, a diffusion layer that is arranged beneath the connecting layer and includes nitrogen in a dissolved condition or separated nitrides, wherein the connecting layer has a minimum thickness of 8 micron.

Claim 8, as far as it is definite, are rejected under 35 U.S.C. 102(b) as being anticipated by Madsac et al. (4,702,779).

Madsac et al. teach a steel article, with a thermochemically treated surface, characterized by several superposed layers at the piston surface, comprising: a layer of oxide that is arranged directly at the piston surface and has a thickness of at least 1

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micron, a connecting layer which is arranged beneath the layer of oxide and is mainly composed of nitrides, a diffusion layer that is arranged beneath the connecting layer and includes nitrogen in a dissolved condition or separated nitrides, wherein the connecting layer has a minimum thickness of 8 micron.

Claim 8, as far as it is definite, are rejected under 35 U.S.C. 102(b) as being anticipated by Heminghouse (4,776,901).

Heminghouse teaches a steel article, with a thermochemically treated surface, characterized by several superposed layers at the piston surface, comprising: a layer of oxide that is arranged directly at the piston surface and has a thickness of at least 1 micron, a connecting layer which is arranged beneath the layer of oxide and is mainly composed of nitrides, a diffusion layer that is arranged beneath the connecting layer and includes nitrogen in a dissolved condition or separated nitrides, wherein the connecting layer has a minimum thickness of 8 micron.

Claims 10, 11, 13, and 14, as far as they are definite, are rejected under 35 U.S.C. 102(b) as being anticipated by Dawes et al. (4,563,223).

Dawes et al. teach a process for surface treatment of a hydraulic piston, characterized by the following procedure: nitrocarburization of the piston in a gaseous medium; postoxidation of the piston in a medium yielding oxygen O.sub.2; machining of the oxidized surface for adjusting the surface quality.

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***Allowable Subject Matter***

Claim 12 would be allowable if rewritten to overcome the rejection(s) under 35 U.S.C. 112, second paragraph, set forth in this Office action and to include all of the limitations of the base claim and any intervening claims.

***Prior Art***

Prior art made of record but not relied upon is considered pertinent to Applicant's disclosure and consist of one patent.

Watanabe et al. (4,918,806) is cited to show a piston having a layer of nitride film but fails to teach a layer of oxide formed on the surface of the piston.

***Contact information***

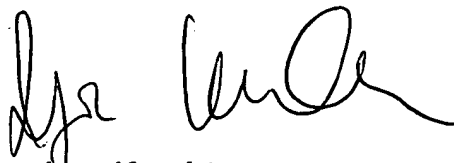
Any inquiry concerning this communication or earlier communications from the examiner should be directed to Examiner Kershteyn whose telephone number is (703) 308 8317. The examiner can be reached on Monday-Friday from 8:00 a.m. to 4:30 p.m.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Edward Look, can be reached on (703) 308 1044. The fax number is (703) 872-9306.


Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Group receptionist whose telephone number is (703) 308 0861.

IK

December 31, 2003



**Igor Kershteyn**  
**Patent examiner.**  
**Art Unit 3745**



**EDWARD K. LOOK**  
**SUPERVISORY PATENT EXAMINER**  
**TECHNOLOGY CENTER 3700**  
1/8/04